

ATTACHMENT D

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) Method in a low voltage net data transmission system for keeping the a load signal voltage level of transmission constant at a location on the net voltage rail or for example in wall outlet or in other corresponding connecting point or in sphere of influence by data transmission furnished with a supply cable,

in which method the a coupling means device for making said the load signal voltage constant comprises:

- ~~operating voltage source (Us) for the signal amplifier (10),~~
- a signal amplifier ~~(20),~~
- a supply voltage source for the signal amplifier,
- one of a low pass or band pass filter ~~(40),~~
- a coupling unit for connecting to an electric network connecting unit (50),
- a connecting supply cable, having a length (L_w), and a series impedance (Z_w),
- a measuring and handling unit (60) of the transmitted signals for the a storage location determination,
- a process electronic unit (70) including a sample and holding circuit (S&H) and control circuits (CONTROL) to produce a control signal (U_{RC} and/or U_{LC}) by means of (U_{LC}) memory map or by means of other type signals with a signal producer,

characterized in that in the method

a the feedback signal(s) is taken wired or wirelessly from one or some the locations or sphere of influence of the actual apparatus or supply cable (L_w) is lead to the measuring and handling unit (60) of the transmitted signals and further to the process unit (70) of including the sample and holding circuit (S&H) or of corresponding means and the control circuits means (CONTROL), by which unit and

the control signal (U_{RC}) and/or U_{LC}) of the process unit is further taken to steer the following: the supply voltage source for the signal amplifier, the signal amplifier, the one of the low pass or band pass filter, and the coupling unit for connecting to the electric network, in such a depending way that from one of the load impedance, the series impedance of the connecting cable or the frequency, output signal or output voltage of blocks (10, 20, 40 and/or 50) in a depending way from load impedance (Z_{LOAD}) and from the series impedance (Z_W) of supply cable (L_W) or possible from frequency, so that the amplitude (U_{LOAD}) of transmission load signal voltage level (U_{LOAD}) on voltage rail or some location of the supply cable or on wall outlet or on corresponding connecting point is constant or kept almost constant.

2. (currently amended) Method according to claim 1, characterized in that in the method a reference transmission signal (U_{OUT} constant/block 20) of an output signal voltage of the signal amplifier is of constant brief short duration of 2 ms-20s, e. g. 40 ms, and is sent/transmitted, and, by means of feedback signals measured from different points on one of a the transmitter and/or a supply cable and from a drawn up (U_{LC}) memory map, a control voltage is determined, by means use of which control voltage the output signal voltage level of the signal amplifier (20) reaches at a predefined value so that the a load transmission signal (U_{LOAD}) is in the location is voltage rail or in wall outlet or in other corresponding connecting point constant or almost constant.

3. (currently amended) Method in a low voltage electric net data transmission system for keeping the signal a load signal voltage during transmitting level of transmission constant on a the net voltage rail or on some location of the supply cable or in sphere of influence of the rail or cable or in wall outlet or in other corresponding connecting point,

in which method the a coupling means device for making said the load signal voltage constant comprises:

- operating voltage source (U_S) for the signal amplifier (10),
- a signal amplifier (20),
- a supply voltage source for the signal amplifier,

- one of a low pass or band pass filter-(40),
- a coupling input unit-(50),
- a connecting supply cable, having a length-(L_w), and a series impedance-(Z_w),
- a coupling output unit/feedback-(80) or unit adapted to the function,
- an ALC/AGC/ACC unit (90) to bring about producing control signals to control
one of UALC, UAGC and/or UAcc, whereby the an output signals and control voltages
of the supply voltage source blocks (10,20, 40 and/or 50) or an output signal voltage of
the signal amplifier or filter or coupling unit so that the load signal voltage is kept
constant or almost constant can be steered by control signal UALC, UAGC and/or
UAGC,

characterized in that in the method

a location the rail signal (ULOAD) or close to voltage rails influencing signal in
transmission situation, or from one or some locations of the supply cable-(L_w), the is
elected to be a feedback signal which is taken wired or wireless by means of output the
coupling unit/feedback (80) or by other way to the (ALC/AGC/ACC) unit (90) to bring
about for generating control signals,

by means of which feedback signal the blocks-(10,20, 40 and/or 50) signal amplifier,
the supply voltage source for the signal amplifier, the one of the one of a low pass or
band pass filter, and the coupling unit is are steered in a depending way from the load
impedance-(Z_{LOAD}) and of the connecting supply cable, having the length-(L_w) and the
series impedance-(Z_w) and possible a frequency, by a depending way so that the load
signal voltage amplitude of transmission amplitude level-(ULOAD) during transmitting is
constant or almost essentially constant on the voltage rail or some location of the supply
cable or in wall outlet or in other corresponding connecting point.

4. (new) Method according to claim 1, wherein the signal producer includes a signal memory map.